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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,172	04/11/2005	Honjo Tetsuji	MOR-C557	5058
<div>7590 05/02/2007</div> <div>George A. Loud , Esquire BACON & THOMAS 625 Slater Lane , Fourth Floor Alexandria, VA 22314-1176</div>				
			EXAMINER KOPEC, MARK T	
			ART UNIT 1751	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/531,172

Applicant(s)

TETSUJI ET AL.

Examiner

Mark Kopec

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

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This application is a 371 of PCT/JP03/14178 (filed 11/07/03). The preliminary amendment filed 07/10/06 is entered. Claims 1-13 are currently pending.

The references cited in the Search Report filed 04/11/05 have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In order to conform to U.S. practice, (at each occurrence) applicant should amend the instant claim language "and/or" to --selected from the group consisting of--.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 4-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as

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obvious over either Mantese et al (4,918,051), Chen et al (5,122,510), JP 01111713, or Singhal (*Solution Processing...*).

Mantese discloses Superconducting thin films of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$, having a superconducting transition temperature of 90 K, are produced in a non-vacuum environment using Metallo-Organic Deposition techniques. An ink comprising the neodecanoates of yttrium, barium, and copper is formed and spun on a single crystal substrate of strontium titanate. The ink is dried in an air environment, heated in an air environment at a temperature sufficient to decompose the neodecanoates, about 500.degree. C., and then heated again to promote recrystallization and grain growth of the remaining metal oxides. The resulting thin film exhibits superconductive characteristics at about 90 K (Abstract; Col 3, lines 54-68).

Chen discloses method of making high T_c 1-2-3 superconductors having perovskite structure using solution techniques is disclosed. The process uses two solvent systems to form a resinous preceramic material having a controlled viscosity for facilitating its formation into superconducting articles such as fibers, wires, ribbons, films and the like. The process yields a pre-ceramic which is flexible and which has sufficient structural integrity to withstand normal handling (Abstract).

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The examples utilize barium isopropoxide, yttrium propoxide, and copper ethylhexanoate (Col 7, lines 60-68).

JP 01111713 discloses:

PURPOSE: To obtain superconducting ink capable of forming superconductive film having uniform thickness by several kinds of coating method by mixing naphthenic acid salt, etc., contg. a rare earth metal such as Y, etc., an alkaline earth metal such as Ba, etc., and Cu, etc., respectively, with several kinds of org. resin and org. solvent.

CONSTITUTION: A mixture of each cycloaliphatic carboxylic acid salts such as naphethate, etc., of a rare earth element having tervalent oxidized state such as Y, etc., an alkaline earth element such as Ba, etc., and a metal such as Cu, Ag, Zn, etc., is prep'd. Further, said mixture is mixed with an org. resin such as ethyl cellulose resin, etc., and an org. solvent such as terpeneol. Obtd. superconducting ink has a uniform compsn., and the proportion of the components are easily controllable. Moreover, since the metal components such as Y, B, Cu, etc., are dissolved completely in the org. solvent in this superconducting ink, a superconductive film having 0.1W1.0 μ m uniform thickness and uniform compsn. is obtd. when the ink is coated on a substrate, then cooled slowly after calcining the coated ink at 800W1,000° C.

Singhal discloses:

Abstract

The aim of this work was to develop a non-vacuum chemical deposition technique for $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ (YBCO) coated conductors on rolling-assisted biaxially textured substrates (RABiTS). We have chosen the metal-organic decomposition (MOD) and sol-gel precursor routes to grow textured YBCO films. In the MOD process, yttrium 2-ethylhexanoate, barium neodecanoate, copper 2-ethylhexanoate and toluene were used as the starting reagents. YBCO films processed by the MOD method on SrTiO_3 (100) single crystal substrates were consisted of c and a-axis oriented materials. These films also contained some amount of the random phase. The c and a-axis oriented materials were epitaxial on SrTiO_3 substrates. Films have a $T_{c,\text{onset}}$ of 89K and the best superconducting transition temperature of 63K. Films pyrolyzed at 525 °C and subsequently annealed at 780 °C in a $p(\text{O}_2)$ of 3.5×10^{-4} atm contained YBCO phase predominately in a-axis orientation. In the sol-gel route, yttrium-isopropoxide, barium metal, copper methoxide and 2-methoxyethanol were used as the starting reagents. Sol-gel YBCO films on SrTiO_3 substrates were epitaxial and c-axis oriented.

The above references specifically or inherently meet each of the claimed limitations. With respect to product-by-process

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claims 7-13, the resultant materials (produced above) would be identical to the instantly claimed superconductor thick films.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777

F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). "The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

In view of the foregoing, the above claims have failed to patentably distinguish over the applied art.

Claims 2 and 3 are allowable over the prior art of record. Specifically, the prior art does not disclose or fairly suggest the utilization of Y or Ba trifluoroacetate in combination with the instantly required copper salt(s).

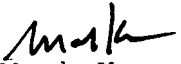
The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Kopeć whose telephone number is (571) 272-1319. The examiner can normally be reached on Monday - Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Mark Kopec
Primary Examiner
Art Unit 1751

MK
April 25, 2007